# FIGURE 1

```
EpCAM_nt      1                                                                     0

Ovr232_nt     1  CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG              50

EpCAM_nt      1                                                                     0

Ovr232_nt    51  CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTAACTCAAGTT            100

EpCAM_nt      1                                                                     0

Ovr232_nt   101  CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG            150

EpCAM_nt      1                                                                     0

Ovr232_nt   151  TGGCCCTGGATTCACAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA            200

EpCAM_nt      1                                                                     0

Ovr232_nt   201  CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCCTCTATCCAG            250

EpCAM_nt      1                                                                     0

Ovr232_nt   251  TTCCCGCACCCTTCCCCCCAGGCCCCATTCTTCAAGGCTTCAGAGCAGCG            300

EpCAM_nt      1                                                                     0

Ovr232_nt   301  CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG            350

EpCAM_nt      1                                                                     0

Ovr232_nt   351  AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG            400

EpCAM_nt      1                                                                     0

Ovr232_nt   401  GGGCGGAGCGGGGCGCGCGGGCCCACACCTGTGGAGAGGGCCGCGCCCCA            450

EpCAM_nt      1                                                                     0

Ovr232_nt   451  ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCCAACTCC            500

EpCAM_nt      1                                                                     0

Ovr232_nt   501  CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAGAGGTGAGCAGTCCCG            550

EpCAM_nt      1                                                                     0

Ovr232_nt   551  GGAAGGGGCCGAGAGGCGGGGCCGCCAGGTCGGGCAGGTGTGCGCTCCGC            600

EpCAM_nt      1                                  CGGCGAGCGAGCACCTTCGAC             21
                                                 ||||||||||||||||||||
Ovr232_nt   601  CCCGCCGCGCGCACAGAGCGCTAGTCCTTCGGCGAGCGAGCACCTTCGAC            650

EpCAM_nt     22  GCGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC             71
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   651  GCGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC            700

EpCAM_nt     72  CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA            121
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   701  CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA            750
```

# FIGURE 1 (continued)

```
EpCAM_nt    122 CGCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGC   171
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   751 CGCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGC   800

EpCAM_nt    172 GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG   221
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   801 GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG   850

EpCAM_nt    222 CGGCGACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAAC   271
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   851 CGGCGACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAAC   900

EpCAM_nt    272 TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG   321
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   901 TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG   950

EpCAM_nt    322 TACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGC---------   362
                ||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt   951 TACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCGTGAGTAAA   1000

EpCAM_nt    363 --------------------------------------------------   362

Ovr232_nt  1001 ATATCCTAATTACCTGTAAGCTTTATTTTGACTTAATACTTCTTTAATTG   1050

EpCAM_nt    363 --------------------------------------------------   362

Ovr232_nt  1051 ATGTGCCTTGAGTTGGAAAGAGTTTTATTGGCTTAAATCTGAATCATGTT   1100

EpCAM_nt    363 --------------------------------------------------   362

Ovr232_nt  1101 ACAAAGTAAGTGTGGGAACACATAAATTTCAAATAATCTTTGACCCTGGA   1150

EpCAM_nt    363 --------------------------------------------------   362

Ovr232_nt  1151 ACTTTAGAGTTAATTTTTTTTTTCCCGTAATCATGAAATCAGTTATTTTT   1200

EpCAM_nt    363 ------------------------------TGGCTGCCAAATGTTTGGTGAT   384
                                              ||||||||||||||||||||||
Ovr232_nt  1201 CAGTTTGGCATTAAGGTTTCTTTTTCAGTGGCTGCCAAATGTTTGGTGAT   1250

EpCAM_nt    385 GAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGAGCAAAACCTGAAG   434
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt  1251 GAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGAGCAAAACCTGAAG   1300

EpCAM_nt    435 GGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGC   484
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt  1301 GGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGC   1350

EpCAM_nt    485 GGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCACGTGCTGGTGTGT   534
                |||||||||||||||||||||||||||||||||||||||·||||||||||
Ovr232_nt  1351 GGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCATGTGCTGGTGTGT   1400

EpCAM_nt    535 GAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCT   584
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt  1401 GAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCT   1450

EpCAM_nt    585 CTGAGCGAGTGAGAACCTACTGGATCATCATTGAACTAAAACACAAAGCA   634
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt  1451 CTGAGCGAGTGAGAACCTACTGGATCATCATTGAACTAAAACACAAAGCA   1500
```

# FIGURE 1 (continued)

```
EpCAM_nt   635 AGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGA   684
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1501 AGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGA  1550

EpCAM_nt   685 GATCACAACGCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGT   734
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1551 GATCACAACGCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGT  1600

EpCAM_nt   735 ATGAGAATAATGTTATCACTATTGATCTGGTTCAAAATTCTTCTCAAAAA   784
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1601 ATGAGAATAATGTTATCACTATTGATCTGGTTCAAAATTCTTCTCAAAAA  1650

EpCAM_nt   785 ACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTATTTTGAAAAAGA   834
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1651 ACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTATTTTGAAAAAGA  1700

EpCAM_nt   835 TGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAA   884
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1701 TGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAA  1750

EpCAM_nt   885 ATGGGGAACAACTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTT   934
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1751 ATGGGGAACAACTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTT  1800

EpCAM_nt   935 GATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTAT   984
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1801 GATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTAT  1850

EpCAM_nt   985 TGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGC  1034
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1851 TGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGC  1900

EpCAM_nt  1035 TGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATA  1084
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1901 TGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATA  1950

EpCAM_nt  1085 AAGGAGATGGGTGAGATGCATAGGGAACTCAATGCATAACTATATAATTT  1134
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 1951 AAGGAGATGGGTGAGATGCATAGGGAACTCAATGCATAACTATATAATTT  2000

EpCAM_nt  1135 GAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTG  1184
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2001 GAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTG  2050

EpCAM_nt  1185 TGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTTTGTTAGTTTAAC  1234
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2051 TGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTTTGTTAGTTTAAC  2100

EpCAM_nt  1235 ATCATATATTTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGA  1284
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2101 ATCATATATTTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGA  2150

EpCAM_nt  1285 AACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCA  1334
               |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2151 AACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCA  2200

EpCAM_nt  1335 GATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTAAAATTATTTATG  1384
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2201 GATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTAAAATTATTTATG  2250
```

# FIGURE 1 (continued)

```
EpCAM_nt  1385  TGTAACATTCAAATGTGTGCATTAAATATGCTTCCACAGTAAAATCTGAA  1434
                |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2251  TGTAACATTCAAATGTGTGCATTAAATATGCTTCCACAGTAAAATCTGAA  2300

EpCAM_nt  1435  AAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGTAC  1484
                |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2301  AAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGTAC  2350

EpCAM_nt  1485  ATACATACTTTTTTATGAGCTATGAAATAAAACATTTTAAACTG        1528
                ||||||||||||||||||||||||||||||||||||||||||||
Ovr232_nt 2351  ATACATACTTTTTTATGAGCTATGAAATAAAACATTTTAAACTGAA      2396
```

# FIGURE 2

```
EpCAM_aa      1 MAPPQVLAFGLLLAAATATFAAAQEECVCENYKLAVNCFVNNNRQCQCTS          50
                                                                 ..:.
Ovr232_aa     1                                                  MKSV          4

EpCAM_aa     51 VGAQNTVICSKLAAKCLVMKAEMNGSKLGRRAKPEGALQNNDGLYDPDCD         100
                :........:...:|||||||||||||||||||||||||||||||||||||
Ovr232_aa     5 IFQFGIKVSFSVAAKCLVMKAEMNGSKLGRRAKPEGALQNNDGLYDPDCD          54

EpCAM_aa    101 ESGLFKAKQCNGTSTCWCVNTAGVRRTDKDTEITCSERVRTYWIIIELKH         150
                ||||||||||||||·||||||||||||||||||||||||||||||||||
Ovr232_aa    55 ESGLFKAKQCNGTSMCWCVNTAGVRRTDKDTEITCSERVRTYWIIIELKH         104

EpCAM_aa    151 KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLVQNSS         200
                |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_aa   105 KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLVQNSS         154

EpCAM_aa    201 QKTQNDVDIADVAYYFEKDVKGESLFHSKKMDLTVNGEQLDLDPGQTLIY         250
                |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_aa   155 QKTQNDVDIADVAYYFEKDVKGESLFHSKKMDLTVNGEQLDLDPGQTLIY         204

EpCAM_aa    251 YVDEKAPEFSMQGLKAGVIAVIVVVVIAVVAGIVVLVISRKKRMAKYEKA         300
                |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232_aa   205 YVDEKAPEFSMQGLKAGVIAVIVVVVIAVVAGIVVLVISRKKRMAKYEKA         254

EpCAM_aa    301 EIKEMGEMHRELNA                                        314
                ||||||||||||||
Ovr232_aa   255 EIKEMGEMHRELNA                                        268
```

# FIGURE 3

```
EpCAM_nt        1                                                          0

Ovr232V1_nt     1 CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG     50

EpCAM_nt        1                                                          0

Ovr232V1_nt    51 CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTAACTCAAGTT    100

EpCAM_nt        1                                                          0

Ovr232V1_nt   101 CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG    150

EpCAM_nt        1                                                          0

Ovr232V1_nt   151 TGGCCCTGGATTCACAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA    200

EpCAM_nt        1                                                          0

Ovr232V1_nt   201 CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCCTCTATCCAG    250

EpCAM_nt        1                                                          0

Ovr232V1_nt   251 TTCCCGCACCCTTCCCCCCAGGCCCCATTCTTCAAGGCTTCAGAGCAGCG    300

EpCAM_nt        1                                                          0

Ovr232V1_nt   301 CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG    350

EpCAM_nt        1                                                          0

Ovr232V1_nt   351 AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG    400

EpCAM_nt        1                                                          0

Ovr232V1_nt   401 GGGCGGAGCGGGGCGCGCGGGCCCACACCTGTGGAGAGGGCCGCGCCCCA    450

EpCAM_nt        1                                                          0

Ovr232V1_nt   451 ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCCAACTCC    500

EpCAM_nt        1                            CGGCGAGCGAGCACCTTCGACG     22
                                             |||| ·||
Ovr232V1_nt   501 CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAG--------------    535

EpCAM_nt       23 CGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGCC     72

Ovr232V1_nt   536 ------------------------------------------------    535

EpCAM_nt       73 CCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCAC    122

Ovr232V1_nt   536 ------------------------------------------------    535

EpCAM_nt      123 GCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGCG    172

Ovr232V1_nt   536 ------------------------------------------------    535

EpCAM_nt      173 CGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCGC    222

Ovr232V1_nt   536 ------------------------------------------------    535
```

## FIGURE 3 (continued)

```
EpCAM_nt      223 GGCGACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAACT  272
                                                    ||||||||||||||||||
Ovr232V1_nt   536 ------------------------------AGAATGTGTCTGTGAAAACT  555

EpCAM_nt      273 ACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTGT  322
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   556 ACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTGT  605

EpCAM_nt      323 ACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCTGGCTGCCAA  372
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   606 ACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCTGGCTGCCAA  655

EpCAM_nt      373 ATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGAG  422
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   656 ATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGAG  705

EpCAM_nt      423 CAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGAC  472
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   706 CAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGAC  755

EpCAM_nt      473 TGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCAC  522
                  ||||||||||||||||||||||||||||||||||||||||||||||||||·
Ovr232V1_nt   756 TGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCAT  805

EpCAM_nt      523 GTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTG  572
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   806 GTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACTG  855

EpCAM_nt      573 AAATAACCTGCTCTGAGCGAGTGAGAACCTACTGGATCATCATTGAACTA  622
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   856 AAATAACCTGCTCTGAGCGAGTGAGAACCTACTGGATCATCATTGAACTA  905

EpCAM_nt      623 AAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGC  672
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   906 AAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTGC  955

EpCAM_nt      673 ACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATCA  722
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt   956 ACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATCA 1005

EpCAM_nt      723 CGAGTATTTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAAT  772
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1006 CGAGTATTTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAAT 1055

EpCAM_nt      773 TCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTA  822
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1056 TCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATTA 1105

EpCAM_nt      823 TTTTGAAAAAGATGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGG  872
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1106 TTTTGAAAAAGATGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATGG 1155

EpCAM_nt      873 ACCTGACAGTAAATGGGGAACAACTGGATCTGGATCCTGGTCAAACTTTA  922
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1156 ACCTGACAGTAAATGGGGAACAACTGGATCTGGATCCTGGTCAAACTTTA 1205

EpCAM_nt      923 ATTTATTATGTTGATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAA  972
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1206 ATTTATTATGTTGATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAAA 1255
```

# FIGURE 3 (continued)

```
EpCAM_nt      973 AGCTGGTGTTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTG 1022
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1256 AGCTGGTGTTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCTG 1305

EpCAM_nt     1023 GAATTGTTGTGCTGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAG 1072
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1306 GAATTGTTGTGCTGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGAG 1355

EpCAM_nt     1073 AAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACTCAATGCATA 1122
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1356 AAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACTCAATGCATA 1405

EpCAM_nt     1123 ACTATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAA 1172
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1406 ACTATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACAA 1455

EpCAM_nt     1173 ATTACAAATGTGTGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTT 1222
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1456 ATTACAAATGTGTGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGTT 1505

EpCAM_nt     1223 TGTTAGTTTAACATCATATATTTGTAATAGTGAAACCTGTACTCAAAATA 1272
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1506 TGTTAGTTTAACATCATATATTTGTAATAGTGAAACCTGTACTCAAAATA 1555

EpCAM_nt     1273 TAAGCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGT 1322
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1556 TAAGCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTGT 1605

EpCAM_nt     1323 CTTATATATGCAGATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTA 1372
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1606 CTTATATATGCAGATCTAATGTAAAATCCAGAACTTGGACTCCATCGTTA 1655

EpCAM_nt     1373 AAATTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCACA 1422
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1656 AAATTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCACA 1705

EpCAM_nt     1423 GTAAAATCTGAAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACT 1472
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1706 GTAAAATCTGAAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTACT 1755

EpCAM_nt     1473 TGAGTCTTGTACATACATACTTTTTTATGAGCTATGAAATAAAACATTTT 1522
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_nt  1756 TGAGTCTTGTACATACATACTTTTTTATGAGCTATGAAATAAAACATTTT 1805

EpCAM_nt     1523 AAACTG                                             1528
                  ||||||
Ovr232V1_nt  1806 AAACTGAA                                           1813
```

# FIGURE 4

```
EpCAM_aa       1 MAPPQVLAFGLLLAAATATFAA                               22
                 .|............|.|...|.
Ovr232V1_aa    1 METKHLGRGGAGRAGPHLWRGPRPNCSAGAGGGEPTHSPNSRAVTHQRAP    50

EpCAM_aa      23 AQEECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAAKCLVMKAE    72
                 |..|||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_aa   51 AARECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAAKCLVMKAE   100

EpCAM_aa      73 MNGSKLGRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSTCWCVNTA   122
                 |||||||||||||||||||||||||||||||||||||||||.||||||
Ovr232V1_aa  101 MNGSKLGRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSMCWCVNTA   150

EpCAM_aa     123 GVRRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTALQKEITT   172
                 |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_aa  151 GVRRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTALQKEITT   200

EpCAM_aa     173 RYQLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYFEKDVKG   222
                 |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_aa  201 RYQLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYFEKDVKG   250

EpCAM_aa     223 ESLFHSKKMDLTVNGEQLDLDPGQTLIYYVDEKAPEFSMQGLKAGVIAVI   272
                 |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_aa  251 ESLFHSKKMDLTVNGEQLDLDPGQTLIYYVDEKAPEFSMQGLKAGVIAVI   300

EpCAM_aa     273 VVVVIAVVAGIVVLVISRKKRMAKYEKAEIKEMGEMHRELNA          314
                 ||||||||||||||||||||||||||||||||||||||||||
Ovr232V1_aa  301 VVVVIAVVAGIVVLVISRKKRMAKYEKAEIKEMGEMHRELNA          342
```

# FIGURE 5

```
EpCAM_nt      1                                                                   0 ,

Ovr232V2_nt   1 CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG        0

EpCAM_nt      1                                                                   0

Ovr232V2_nt  51 CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTAACTCAAGTT      100

EpCAM_nt      1                                                                   0

Ovr232V2_nt 101 CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG      150

EpCAM_nt      1                                                                   0

Ovr232V2_nt 151 TGGCCCTGGATTCACAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA      200

EpCAM_nt      1                                                                   0

Ovr232V2_nt 201 CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCCTCTATCCAG      250

EpCAM_nt      1                                                                   0

Ovr232V2_nt 251 TTCCCGCACCCTTCCCCCCAGGCCCCATTCTTCAAGGCTTCAGAGCAGCG      300

EpCAM_nt      1                                                                   0

Ovr232V2_nt 301 CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG      350

EpCAM_nt      1                                                                   0

Ovr232V2_nt 351 AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG      400

EpCAM_nt      1                                                                   0

Ovr232V2_nt 401 GGGCGGAGCGGGGCGCGCGGGCCCACACCTGTGGAGAGGGCCGCGCCCCA      450

EpCAM_nt      1                                                                   0

Ovr232V2_nt 451 ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCCAACTCC      500

EpCAM_nt      1                                                                   0

Ovr232V2_nt 501 CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAGAGGTGAGCAGTCCCG      550

EpCAM_nt      1                                                                   0

Ovr232V2_nt 551 GGAAGGGGCCGAGAGGCGGGGCCGCCAGGTCGGGCAGGTGTGCGCTCCGC      600

EpCAM_nt      1 CGGCGAGCGAGCACCTTCGAC                                            21
                |||||||||||||||||||||
Ovr232V2_nt 601 CCCGCCGCGCGCACAGAGCGCTAGTCCTTCGGCGAGCGAGCACCTTCGAC      650

EpCAM_nt     22 GCGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC      71
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt 651 GCGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC      700

EpCAM_nt     72 CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA      21
                ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt 701 CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA      750
```

# FIGURE 5 (continued)

```
EpCAM_nt      122 CGCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGC  171
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt   751 CGCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGC  800

EpCAM_nt      172 GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG  221
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt   801 GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG  850

EpCAM_nt      222 CGGCGACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAAC  271
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt   851 CGGCGACGGCGACTTTTGCCGCAGCTCAGGAAGAATGTGTCTGTGAAAAC  900

EpCAM_nt      272 TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG  321
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt   901 TACAAGCTGGCCGTAAACTGCTTTGTGAATAATAATCGTCAATGCCAGTG  950

EpCAM_nt      322 TACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCTGGCTGCCA  371
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt   951 TACTTCAGTTGGTGCACAAAATACTGTCATTTGCTCAAAGCTGGCTGCCA 1000

EpCAM_nt      372 AATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGA  421
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1001 AATGTTTGGTGATGAAGGCAGAAATGAATGGCTCAAAACTTGGGAGAAGA 1050

EpCAM_nt      422 GCAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGA  471
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1051 GCAAAACCTGAAGGGGCCCTCCAGAACAATGATGGGCTTTATGATCCTGA 1100

EpCAM_nt      472 CTGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCA  521
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1101 CTGCGATGAGAGCGGGCTCTTTAAGGCCAAGCAGTGCAACGGCACCTCCA 1150

EpCAM_nt      522 CGTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACT  571
                  •|||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1151 TGTGCTGGTGTGTGAACACTGCTGGGGTCAGAAGAACAGACAAGGACACT 1200

EpCAM_nt      572 GAAATAACCTGCTCTGAGCGAGTGAGAACCTACTGGATCATCATTGAACT  621
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1201 GAAATAACCTGCTCTGAGCGAGTGAGAACCTACTGGATCATCATTGAACT 1250

EpCAM_nt      622 AAAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTG  671
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1251 AAAACACAAAGCAAGAGAAAAACCTTATGATAGTAAAAGTTTGCGGACTG 1300

EpCAM_nt      672 CACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATC  721
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1301 CACTTCAGAAGGAGATCACAACGCGTTATCAACTGGATCCAAAATTTATC 1350

EpCAM_nt      722 ACGAGTATTTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAA  771
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1351 ACGAGTATTTTGTATGAGAATAATGTTATCACTATTGATCTGGTTCAAAA 1400

EpCAM_nt      772 TTCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATT  821
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_nt  1401 TTCTTCTCAAAAAACTCAGAATGATGTGGACATAGCTGATGTGGCTTATT 1450

EpCAM_nt      822 ATTTTGAAAAAGATGTTAAAGGTGAATCCTTGTTTCATTCTAAGAAAATG  871
                  |||||||||||||||||•|••••||•••••|||•|||••|•||••|•••|•|
Ovr232V2_nt  1451 ATTTTGAAAAAGATGATGTGAGTATCATCTTCTTTATTCCTGTGTTCAGG 1500
```

# FIGURE 5 (continued)

```
EpCAM_nt      872 GACCTGACAGTAAATGGGGAACAACTGGATCTGGATCCTGGTCAAACTTT  921
                  .|..|........|||....|.......|..|..|||..........|||
Ovr232V2_nt  1501 AATGTAGTCTATCATGCCTCAATGAATTAAATATATTTCATCACCTTTTT  1550

EpCAM_nt      922 AATTTATTATGTTGATGAAAAAGCACCTGAATTCTCAATGCAGGGTCTAA  971
                  |.....|||..........|||......|......|..|..|...|.|..
Ovr232V2_nt  1551 ATCCACTTACAGATCAACCAAATGGTTCGCTGCTGCCGTTAATTTTGTCC  1600

EpCAM_nt      972 AAGCTGGTGTTATTGCTGTTATTGTGGTTGTGGTGATAGCAGTTGTTGCT 1021
                  ...|||....|........|.|||....|.||...||....|....|..|
Ovr232V2_nt  1601 TCCCTGTCACTCACATGCATCTTGCTTGTTTGTATATTTATGCCTCTTAT 1650

EpCAM_nt     1022 GGAATTGTTGTGCTGGTTATTTCCAGAAAGAAGAGAATGGCAAAGTATGA 1071
                  ..|||||||.|||....||.||.............||.........|.|
Ovr232V2_nt  1651 CAAATTGTTCTGCCTAAAATATCTCCCCTCTTTCTTATAATTCTTATTTA 1700

EpCAM_nt     1072 GAAGGCTGAGATAAAGGAGATGGGTGAGATGCATAGGGAACTCAATGCAT 1121
                  ..|...............|..|.|.|........|||.|...|.|.|||
Ovr232V2_nt  1701 TTATCTACTTGGTGGTTACTTAGTTTGTGCATATATGCTCCCCTATG--- 1747

EpCAM_nt     1122 AACTATATAATTTGAAGATTATAGAAGAAGGGAAATAGCAAATGGACACA 1171
                  |..|.||||||||||..|.|....|.|....|..|||.|..|.....||..|
Ovr232V2_nt  1748 ATATTTATAATTTACACAAATAAAAGTCTGTTAAAAAAGACTGTAACTGA 1797

EpCAM_nt     1172 AATTACAAATGTGTGTGCGTGGGACGAAGACATCTTTGAAGGTCATGAGT 1221
                  .||.|..||..|.|.|.|...||..||....|.||.||..|..|...|
Ovr232V2_nt  1798 TATGATTAAAATATTTGTTGAAACTTTAATATATTATAGTGAGGT      1843

EpCAM_nt     1222 TTGTTAGTTTAACATCATATATTTGTAATAGTGAAACCTGTACTCAAAAT 1271

Ovr232V2_nt  1844                                                     1843

EpCAM_nt     1272 ATAAGCAGCTTGAAACTGGCTTTACCAATCTTGAAATTTGACCACAAGTG 1321

Ovr232V2_nt  1844                                                     1843

EpCAM_nt     1322 TCTTATATATGCAGATCTAATGTAAAATCCAGAACTTGGACTCCATCGTT 1371

Ovr232V2_nt  1844                                                     1843

EpCAM_nt     1372 AAAATTATTTATGTGTAACATTCAAATGTGTGCATTAAATATGCTTCCAC 1421

Ovr232V2_nt  1844
1843

EpCAM_nt     1422 AGTAAAATCTGAAAAACTGATTTGTGATTGAAAGCTGCCTTTCTATTTAC 1471

Ovr232V2_nt  1844                                                     1843

EpCAM_nt     1472 TTGAGTCTTGTACATACATACTTTTTTATGAGCTATGAAATAAAACATTT 1521

Ovr232V2_nt  1844                                                     1843

EpCAM_nt     1522 TAAACTG                                             1528

Ovr232V2_nt  1844                                                     1843
```

# FIGURE 6

```
EpCAM_aa      1· MAPPQVLAFGLLLAAATATFAAAQEECVCENYKLAVNCFVNNNRQCQCTS    50
                 |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_aa   1  MAPPQVLAFGLLLAAATATFAAAQEECVCENYKLAVNCFVNNNRQCQCTS    50

EpCAM_aa     51  VGAQNTVICSKLAAKCLVMKAEMNGSKLGRRAKPEGALQNNDGLYDPDCD   100
                 |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_aa  51  VGAQNTVICSKLAAKCLVMKAEMNGSKLGRRAKPEGALQNNDGLYDPDCD   100

EpCAM_aa    101  ESGLFKAKQCNGTSTCWCVNTAGVRRTDKDTEITCSERVRTYWIIIELKH   150
                 ||||||||||||||·||||||||||||||||||||||||||||||||||||
Ovr232V2_aa 101  ESGLFKAKQCNGTSMCWCVNTAGVRRTDKDTEITCSERVRTYWIIIELKH   150

EpCAM_aa    151  KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLVQNSS   200
                 |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V2_aa 151  KAREKPYDSKSLRTALQKEITTRYQLDPKFITSILYENNVITIDLVQNSS   200

EpCAM_aa    201  QKTQNDVDIADVAYYFEKDVKGESLFHSKKMDLTVNGEQLDLDPGQTLIY   250
                 |||||||||||||||||||||......|.....:..:....
Ovr232V2_aa 201  QKTQNDVDIADVAYYFEKDDVSIIFFIPVFRNVVYHASMN            240

EpCAM_aa    251  YVDEKAPEFSMQGLKAGVIAVIVVVVIAVVAGIVVLVISRKKRMAKYEKA   300

Ovr232V2_aa 241                                                     240

EpCAM_aa    301  EIKEMGEMHRELNA                                      314

Ovr232V2_aa 241                                                     240
```

# FIGURE 7

```
EpCAM_nt      1                                                              0

Ovr232V3_nt   1  CAGATCTCAATTATCTAATTGCAATTGCAACGAGAACCAAAGCAGGGGAG   50

EpCAM_nt      1                                                              0

Ovr232V3_nt  51  CAGAGACAAACAATTTCTGAGGTAACCAGATGGCTTTATTAACTCAAGTT  100

EpCAM_nt      1                                                              0

Ovr232V3_nt 101  CTCACCTAAAATTGCCCTCAAGAATCCTGTGGGAATGGGTTGCAGTGGTG  150

EpCAM_nt      1                                                              0

Ovr232V3_nt 151  TGGCCCTGGATTCACAACCGACAGAGCTTCTGAATTCTGAGTGATCTGTA  200

EpCAM_nt      1                                                              0

Ovr232V3_nt 201  CACAAACACACCTCTGCCTGGGTTACACGCCTCCACGTTCCTCTATCCAG   50

EpCAM_nt      1                                                              0

Ovr232V3_nt 251  TTCCCGCACCCTTCCCCCCAGGCCCCATTCTTCAAGGCTTCAGAGCAGCG  300

EpCAM_nt      1                                                              0

Ovr232V3_nt 301  CTCCTCCGGTTAAAAGGAAGTCTCAGCACAGAATCTTCAAACCTCCTCGG  350

EpCAM_nt      1                                                              0

Ovr232V3_nt 351  AGGCCACCAAAGATCCCTAACGCCGCCATGGAGACGAAGCACCTGGGGCG  400

EpCAM_nt      1                                                              0

Ovr232V3_nt 401  GGGCGGAGCGGGGCGCGCGGGCCCACACCTGTGGAGAGGGCCGCGCCCCA  450

EpCAM_nt      1                                                              0

Ovr232V3_nt 451  ACTGCAGCGCCGGGGCTGGGGGAGGGGAGCCTACTCACTCCCCCAACTCC  500

EpCAM_nt      1                                                              0

Ovr232V3_nt 501  CGGGCGGTGACTCATCAACGAGCACCAGCGGCCAGAGGTGAGCAGTCCCG  550

EpCAM_nt      1                                                              0

Ovr232V3_nt 551  GGAAGGGGCCGAGAGGCGGGGCCGCCAGGTCGGGCAGGTGTGCGCTCCGC  600

EpCAM_nt      1  CGGCGAGCGAGCACCTTCGAC                                      21
                 ||||||||||||||||||||||
Ovr232V3_nt 601  CCCGCCGCGCGCACAGAGCGCTAGTCCTTCGGCGAGCGAGCACCTTCGAC  650

EpCAM_nt     22  GCGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC   71
                 |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt 651  GCGGTCCGGGGACCCCCTCGTCGCTGTCCTCCCGACGCGGACCCGCGTGC  700

EpCAM_nt     72  CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA  121
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt 701  CCCAGGCCTCGCGCTGCCCGGCCGGCTCCTCGTGTCCCACTCCCGGCGCA  750
```

# FIGURE 7 (continued)

```
EpCAM_nt      122 CGCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGC  171
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt   751 CGCCCTCCCGCGAGTCCCGGGCCCCTCCCGCGCCCCTCTTCTCGGCGCGC  800

EpCAM_nt      172 GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG  221
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt   801 GCGCAGCATGGCGCCCCCGCAGGTCCTCGCGTTCGGGCTTCTGCTTGCCG  850

EpCAM_nt      222 CGGCGACGGCGACTTTTGCCGCAGCTCAGGAA-----------------  253
                  ||||||||||||||||||||||||||||||||
Ovr232V3_nt   851 CGGCGACGGCGACTTTTGCCGCAGCTCAGGAAGGTGAGGCGCGGATTGGA  900

EpCAM_nt      254 --------------------------------------------------  253

Ovr232V3_nt   901 GCAGAGTTGTGGAGCTGGGCTGGGCTGGGGGGCAGCGGCCCCCGGCCCTC  950

EpCAM_nt      254 --------------------------------------------------  253

Ovr232V3_nt   951 GGCCCCCGAAACGGGCATAATAGGGAGGGGACCAAGAGGCCGCGCTTTCC  1000

EpCAM_nt      254 --------------------------------------------------  253

Ovr232V3_nt  1001 AGCGTGGAGACCGGACGGTGCGGCCGTGCTCCGGCTCAGGCCCTCCGCGC  1050

EpCAM_nt      254 --------------------------------------------------  253

Ovr232V3_nt  1051 GGTAGGAAACGGCGAGGGCCGTCCCGGGGAGCAGCCTCACTTCGCAGCTT  1100

EpCAM_nt      254 ----------GAATGTGTCTGTGAAAACTACAAGCTGGCCGTAAACTGCT  293
                            |||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1101 TGCTCGCCTTGAATGTGTCTGTGAAAACTACAAGCTGGCCGTAAACTGCT  1150

EpCAM_nt      294 TTGTGAATAATAATCGTCAATGCCAGTGTACTTCAGTTGGTGCACAAAAT  343
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1151 TTGTGAATAATAATCGTCAATGCCAGTGTACTTCAGTTGGTGCACAAAAT  1200

EpCAM_nt      344 ACTGTCATTTGCTCAAAGCTGGCTGCCAAATGTTTGGTGATGAAGGCAGA  393
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1201 ACTGTCATTTGCTCAAAGCTGGCTGCCAAATGTTTGGTGATGAAGGCAGA  1250

EpCAM_nt      394 AATGAATGGCTCAAAACTTGGGAGAAGAGCAAAACCTGAAGGGGCCCTCC  443
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1251 AATGAATGGCTCAAAACTTGGGAGAAGAGCAAAACCTGAAGGGGCCCTCC  1300

EpCAM_nt      444 AGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGCGGGCTCTTT  493
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1301 AGAACAATGATGGGCTTTATGATCCTGACTGCGATGAGAGCGGGCTCTTT  1350

EpCAM_nt      494 AAGGCCAAGCAGTGCAACGGCACCTCCACGTGCTGGTGTGTGAACACTGC  543
                  ||||||||||||||||||||||||||||||||·|||||||||||||||||
Ovr232V3_nt  1351 AAGGCCAAGCAGTGCAACGGCACCTCCATGTGCTGGTGTGTGAACACTGC  1400

EpCAM_nt      544 TGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCTCTGAGCGAG  593
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1401 TGGGGTCAGAAGAACAGACAAGGACACTGAAATAACCTGCTCTGAGCGAG  1450

EpCAM_nt      594 TGAGAACCTACTGGATCATCATTGAACTAAAACACAAAGCAAGAGAAAAA  643
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1451 TGAGAACCTACTGGATCATCATTGAACTAAAACACAAAGCAAGAGAAAAA  1500
```

# FIGURE 7 (continued)

```
EpCAM_nt      644 CCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGAGATCACAAC  693
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1501 CCTTATGATAGTAAAAGTTTGCGGACTGCACTTCAGAAGGAGATCACAAC 1550

EpCAM_nt      694 GCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGTATGAGAATA  743
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1551 GCGTTATCAACTGGATCCAAAATTTATCACGAGTATTTTGTATGAGAATA 1600

EpCAM_nt      744 ATGTTATCACTATTGATCTGGTTCAAAATTCTTCTCAAAAAACTCAGAAT  793
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1601 ATGTTATCACTATTGATCTGGTTCAAAATTCTTCTCAAAAAACTCAGAAT 1650

EpCAM_nt      794 GATGTGGACATAGCTGATGTGGCTTATTATTTTGAAAAAGATGTTAAAGG  843
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1651 GATGTGGACATAGCTGATGTGGCTTATTATTTTGAAAAAGATGTTAAAGG 1700

EpCAM_nt      844 TGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAAATGGGGAAC  893
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1701 TGAATCCTTGTTTCATTCTAAGAAAATGGACCTGACAGTAAATGGGGAAC 1750

EpCAM_nt      894 AACTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTTGATGAAAAA  943
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1751 AACTGGATCTGGATCCTGGTCAAACTTTAATTTATTATGTTGATGAAAAA 1800

EpCAM_nt      944 GCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTATTGCTGTTAT  993
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1801 GCACCTGAATTCTCAATGCAGGGTCTAAAAGCTGGTGTTATTGCTGTTAT 1850

EpCAM_nt      994 TGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGCTGGTTATTT 1043
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1851 TGTGGTTGTGGTGATAGCAGTTGTTGCTGGAATTGTTGTGCTGGTTATTT 1900

EpCAM_nt     1044 CCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATAAAGGAGATG 1093
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1901 CCAGAAAGAAGAGAATGGCAAAGTATGAGAAGGCTGAGATAAAGGAGATG 1950

EpCAM_nt     1094 GGTGAGATGCATAGGGAACTCAATGCATAACTATATAATTTGAAGATTAT 1143
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  1951 GGTGAGATGCATAGGGAACTCAATGCATAACTATATAATTTGAAGATTAT 2000

EpCAM_nt     1144 AGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTGTGTGCGTGG 1193
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  2001 AGAAGAAGGGAAATAGCAAATGGACACAAATTACAAATGTGTGTGCGTGG 2050

EpCAM_nt     1194 GACGAAGACATCTTTGAAGGTCATGAGTTTGTTAGTTTAACATCATATAT 1243
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  2051 GACGAAGACATCTTTGAAGGTCATGAGTTTGTTAGTTTAACATCATATAT 2100

EpCAM_nt     1244 TTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGAAACTGGCTT 1293
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  2101 TTGTAATAGTGAAACCTGTACTCAAAATATAAGCAGCTTGAAACTGGCTT 2150

EpCAM_nt     1294 TACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCAGATCTAATG 1343
                  |||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  2151 TACCAATCTTGAAATTTGACCACAAGTGTCTTATATATGCAGATCTAATG 2200

EpCAM_nt     1344 TAAAATCCAGAACTTGGACTCCATCGTTAAAATTATTTATGTGTAACATT 1393
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt  2201 TAAAATCCAGAACTTGGACTCCATCGTTAAAATTATTTATGTGTAACATT 2250
```

## FIGURE 7 (continued)

```
EpCAM_nt     1394 CAAATGTGTGCATTAAATATGCTTCCACAGTAAAATCTGAAAAACTGATT 1443
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt 2251 CAAATGTGTGCATTAAATATGCTTCCACAGTAAAATCTGAAAAACTGATT 2300

EpCAM_nt     1444 TGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGTACATACATACT 1493
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_nt 2301 TGTGATTGAAAGCTGCCTTTCTATTTACTTGAGTCTTGTACATACATACT 2350

EpCAM_nt     1494 TTTTTATGAGCTATGAAATAAAACATTTTAAACTG                1528
                  ||||||||||||||||||||||||||||||||||
Ovr232V3_nt 2351 TTTTTATGAGCTATGAAATAAAACATTTTAAACTGAA              2387
```

# FIGURE 8

```
EpCAM_aa         1  MAPPQVLAFGLLLAAATATFAAAQE--------------------------  25
                    ||||||||||||||||||||||||||
Ovr232V3_aa      1  MAPPQVLAFGLLLAAATATFAAAQEGEARIGAKLWSWAGLGGNGPRPSAP   50

EpCAM_aa        26  --------------------------------------------------  25

Ovr232V3_aa     51  ETGIIGRGPRGRAFQRGDRTVRPCSGSGPPRGRKRRGPSRGAASLRSFAR  100

EpCAM_aa        26  -ECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAAKCLVMKAEMN   74
                     |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_aa    101  LECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKLAAKCLVMKAEMN  150

EpCAM_aa        75  GSKLGRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSTCWCVNTAGV  124
                    ||||||||||||||||||||||||||||||||||||||||||·|||||||||
Ovr232V3_aa    151  GSKLGRRAKPEGALQNNDGLYDPDCDESGLFKAKQCNGTSMCWCVNTAGV  200

EpCAM_aa       125  RRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTALQKEITTRY  174
                    |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_aa    201  RRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTALQKEITTRY  250

EpCAM_aa       175  QLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYFEKDVKGES  224
                    |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_aa    251  QLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYFEKDVKGES  300

EpCAM_aa       225  LFHSKKMDLTVNGEQLDLDPGQTLIYYVDEKAPEFSMQGLKAGVIAVIVV  274
                    |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr232V3_aa    301  LFHSKKMDLTVNGEQLDLDPGQTLIYYVDEKAPEFSMQGLKAGVIAVIVV  350

EpCAM_aa       275  VVIAVVAGIVVLVISRKKRMAKYEKAEIKEMGEMHRELNA            314
                    |||||||||||||||||||||||||||||||||||||||
Ovr232V3_aa    351  VVIAVVAGIVVLVISRKKRMAKYEKAEIKEMGEMHRELNA            390
```

# FIGURE 9

```
Ovr107          1 AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG   50

455_051.nt.2    1                                                        0

Ovr107         51 GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG  100

455_051.nt.2    1                                                        0

Ovr107        101 ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGGAGCAGCCAGGACGAG  150

455_051.nt.2    1                                                        0

Ovr107        151 GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC  200

455_051.nt.2    1                                                        0

Ovr107        201 GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT  250

455_051.nt.2    1                                                        0

Ovr107        251 TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC  300

455_051.nt.2    1                                                        0

Ovr107        301 CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG  350

455_051.nt.2    1                                                        0

Ovr107        351 ACGACCCCAGGCGAAGCCCATTCCCGAGGCAGAGGAGGCGCAGAGGCCTG  400

455_051.nt.2    1                                            0

Ovr107        401 AGCCGGTGGGGACCTCGAGCAA-------CGCTGACTC----GGC-CTCC  438
                   || .|||...|||             ||||   |||   ||| ||||
455_051.nt.2    1 GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC   38

Ovr107        439 CCGGACCTGGGTCC---------CCGGGGTCCTGACCTGGCGGTTCTGCA  479
                   ||       |||        ||.||| |||||||          ||
455_051.nt.2   39 CC---------TCCCGCCACTTGCCAGGG--CTGACCT----------CA   67

Ovr107        480 -GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTCGACGACGTAGAG  528
                   .||             ||| ||.|||||..||||.|
455_051.nt.2   68 CCGC--------------CAT-CTTAACCGGGTGTCC------------   89

Ovr107        529 AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA  578
                   |.||.|.|         ||||               |.||| .||||||||.
455_051.nt.2   90 ACCTCTCT-------CTGC---------------CTGCC-TGGTGCTGGC  116

Ovr107        579 GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG  624
                   .|       ||||.||.|| ..||| |||||.|.|.||| ...|||
455_051.nt.2  117 CC--------CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG  156

Ovr107        625 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA  674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  157 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA  206

Ovr107        675 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG  724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  207 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG  256
```

# FIGURE 9 (continued)

```
Ovr107        725 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 774
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  257 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 306

Ovr107        775 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG 824
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  307 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG 356

Ovr107        825 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA 874
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  357 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA 406

Ovr107        875 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG 924
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  407 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG 456

Ovr107        925 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC 974
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  457 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC 506

Ovr107        975 CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG 1024
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  507 CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG 556

Ovr107       1025 CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG 1074
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  557 CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG 606

Ovr107       1075 CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC 1124
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  607 CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC 656

Ovr107       1125 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 1174
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  657 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 706

Ovr107       1175 GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG 1224
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  707 GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG 756

Ovr107       1225 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG 1274
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  757 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG 806

Ovr107       1275 GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT 1324
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  807 GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT 856

Ovr107       1325 ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC 1374
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  857 ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC 906

Ovr107       1375 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 1424
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  907 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 956

Ovr107       1425 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1474
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2  957 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1006
```

# FIGURE 9 (continued)

```
Ovr107          1475 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1524
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.  21007 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1056

Ovr107          1525 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1057 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106

Ovr107          1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1624
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1156

Ovr107          1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
                     |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCG-- 1204

Ovr107          1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724

455_051.nt.2 1205 -------------------------------------------------- 1204

Ovr107          1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1774
                     ||·|||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1205 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1254

Ovr107          1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1824
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1255 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1304

Ovr107          1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1305 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1354

Ovr107          1875 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1355 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1404

Ovr107          1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1974
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1405 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1454

Ovr107          1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 2024
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1455 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 1504

Ovr107          2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1505 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1554

Ovr107          2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 2124
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1555 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 1604

Ovr107          2125 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 2174
                     ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.2 1605 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 1654

Ovr107          2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAAA  2221
                     |||||||||||||||||||||||||||||||·
455_051.nt.2 1655 AGCCTATAAACAGCCTCCGTGCTTAGCAG                      1683
```

# FIGURE 10

```
Ovr107_aa        1 MNRTWPRRIWGSSQDEAELIREDIQGALHNYRSGRGERRAAALRATQEEL      50

455_051.aa.3     1                                                         0


Ovr107_aa       51 QRDRSPAAETPPLQRRPSVRAVISTVERGAGRGRPQAKPIPEAEEAQRPE     100

455_051.aa.3     1                                                         0


Ovr107_aa      101 PVGTSSNADSASPDLGPRGPDLAVLQAEREVDILNHVFDDVESFVSRLQK     150
                      .||  |.|..|...:.:|:                       ..:.|..
455_051.aa.3     1          MSP-LSPGSPLPPLARAD---------------LTAILTG      24


Ovr107_aa      151 SAEAARVLEHRERGRRSRRRAAGEGLLTLRAKPPSEAEYTDVLQKIKYAF     200
                   ....:..|....|..|..|....|||||||||||||||||||||||||||
455_051.aa.3    25 CPPLSACLVLAPRPHRRARLLPSEGLLTLRAKPPSEAEYTDVLQKIKYAF      74


Ovr107_aa      201 SLLARLRGNIADPSSPELLHFLFGPLQMIVNTSGGPEFASSVRRPHLTSD     250
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3    75 SLLARLRGNIADPSSPELLHFLFGPLQMIVNTSGGPEFASSVRRPHLTSD     124


Ovr107_aa      251 AVALLRDNVTPRENELWTSLGDSWTRPGLELSPEEGPPYRPEFFSGWEPP     300
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3   125 AVALLRDNVTPRENELWTSLGDSWTRPGLELSPEEGPPYRPEFFSGWEPP     174


Ovr107_aa      301 VTDPQSRAWEDPVEKQLQHERRRRQQSAPQVAVNGHRDLEPESEPQLESE     350
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3   175 VTDPQSRAWEDPVEKQLQHERRRRQQSAPQVAVNGHRDLEPESEPQLESE     224


Ovr107_aa      351 TAGKWVLCNYDFQARNSSELSVKQRDVLEVLDDSRKWWKVRDPAGQEGYV     400
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3   225 TAGKWVLCNYDFQARNSSELSVKQRDVLEVLDDSRKWWKVRDPAGQEGYV     274


Ovr107_aa      401 PYNILTPYPGPRLHHSQSPARSLNSTPPPPPAPAPAPPPALARPRWDRPR     450
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3   275 PYNILTPYPGPRLHHSQSPARSLNSTPPPPPAPAPAPPPALARPRWDRPR     324


Ovr107_aa      451 WDSCDSLNGLDPSEKEKFSQMLIVNEELQARLAQGRSGPSRAVPGPRAPE     500
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3   325 WDSCDSLNGLDPSEKEKFSQMLIVNEELQARLAQGRSGPSRAVPGPRAPE     374


Ovr107_aa      501 PQLSPGSDASEVRAWLQAKGFSSGTVDALGVLTGAQLFSLQREELRAVSP     550
                   |||||||||||||||||||||||||||||||||||||||:||||||||||
455_051.aa.3   375 PQLSPGSDASEVRAWLQAKGFSSGTVDALGVLTGAQLFSLQKEELRAVSP     424


Ovr107_aa      551 EEGARVYSQVTVQRSLLEDKEKVSELEAVMEKQKKKVEGEVEMEVI        596
                   ||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.3   425 EEGARVYSQVTVQRSLLEDKEKVSELEAVMEKQKKKVEGEVEMEVI        470
```

# FIGURE 11

```
Ovr107_aa        1 MNRTWPRRIWGSSQDEAELIREDIQGALHNYRSGRGERRAAALRATQEEL   50

455_051.aa.2     1                                                       0

Ovr107_aa       51 QRDRSPAAETPPLQRRPSVRAVISTVERGAGRGRPQAKPIPEAEEAQRPE  100

455_051.aa.2     1                                                       0

Ovr107_aa      101 PVGTSSNADSASPDLGPRGPDLAVLQAEREVDILNHVFDDVESFVSRLQK   50
                   :....|| |.|..|...:.:|:              ..:.|..
455_051.aa.2     1 DLFQMSP-LSPGSPLPPLARAD---------------LTAILTG         28

Ovr107_aa      151 SAEAARVLEHRERGRRSRRRAAGEGLLTLRAKPPSEAEYTDVLQKIKYAF  200
                   ....:..|....|..|..|....||||||||||||||||||||||||||
455_051.aa.2    29 CPPLSACLVLAPRPHRRARLLPSEGLLTLRAKPPSEAEYTDVLQKIKYAF   78

Ovr107_aa      201 SLLARLRGNIADPSSPELLHFLFGPLQMIVNTSGGPEFASSVRRPHLTSD  250
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.2    79 SLLARLRGNIADPSSPELLHFLFGPLQMIVNTSGGPEFASSVRRPHLTSD  128

Ovr107_aa      251 AVALLRDNVTPRENELWTSLGDSWTRPGLELSPEEGPPYRPEFFSGWEPP  300
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.2   129 AVALLRDNVTPRENELWTSLGDSWTRPGLELSPEEGPPYRPEFFSGWEPP  178

Ovr107_aa      301 VTDPQSRAWEDPVEKQLQHERRRRQQSAPQVAVNGHRDLEPESEPQLESE  350
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.2   179 VTDPQSRAWEDPVEKQLQHERRRRQQSAPQVAVNGHRDLEPESEPQLESE  228

Ovr107_aa      351 TAGKWVLCNYDFQARNSSELSVKQRDVLEVLDDSRKWWKVRDPAGQEGYV  400
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.2   229 TAGKWVLCNYDFQARNSSELSVKQRDVLEVLDDSRKWWKVRDPAGQEGYV  278

Ovr107_aa      401 PYNILTPYPGPRLHHSQSPARSLNSTPPPPPAPAPAPPPALARPRWDRPR  450
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.2   279 PYNILTPYPGPRLHHSQSPARSLNSTPPPPPAPAPAPPPALARPRWDRPR  328

Ovr107_aa      451 WDSCDSLNGLDPSEKEKFSQMLIVNEELQARLAQGRSGPSRAVPGPRAPE  500
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.aa.2   329 WDSCDSLNGLDPSEKEKFSQMLIVNEELQARLAQGRSGPSRAVPGPRAPE  378

Ovr107_aa      501 PQLSPGSDASEVRAWLQAKGFSSGTVDALGVLTGAQLFSLQREELRAVSP  550
                   |||||||||||||||||||||||||||||......
455_051.aa.2   379 PQLSPGSDASEVRAWLQAKGFSSGRRSCGR                      408

Ovr107_aa      551 EEGARVYSQVTVQRSLLEDKEKVSELEAVMEKQKKKVEGEVEMEVI       596

455_051.aa.2   409                                                       408
```

# FIGURE 12

```
Ovr107        1 AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG  50

455_051.nt.3  1                                                        0

Ovr107       51 GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG 100

455_051.nt.3  1                                                        0

Ovr107      101 ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG 150

455_051.nt.3  1                                                        0

Ovr107      151 GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC 200

455_051.nt.3  1                                                        0

Ovr107      201 GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT 250

455_051.nt.3  1                                                        0

Ovr107      251 TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC 300

455_051.nt.3  1                                                        0

Ovr107      301 CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG 350

455_051.nt.3  1                                                        0

Ovr107      351 ACGACCCCAGGCGAAGCCCATTCCCGAGGCAGAGGAGGCGCAGAGGCCTG 400

455_051.nt.3  1                                                        0

Ovr107      401 AGCCGGTGGGGACCTCGAGCAA-------CGCTGACTC----GGC-CTCC 438
                     ||·|||···|||       |||| |||    ||| ||||
455_051.nt.3  1             GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC  38

Ovr107      439 CCGGACCTGGGTCC---------CCGGGGTCCTGACCTGGCGGTTCTGCA 479
                ||      |||       ||·||| ||||||          ||
455_051.nt.3 39 CC---------TCCCGCCACTTGCCAGGG--CTGACCT----------CA  67

Ovr107      480 -GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTCGACGACGTAGAG 528
                ·||                  ||| ||·||||··||||·|
455_051.nt.3 68 CCGC-------------CAT-CTTAACCGGGTGTCC-----------  89

Ovr107      529 AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA 578
                |·||·|·|      ||||                |·||| ·||||||||·
455_051.nt.3 90 ACCTCTCT-------CTGC---------------CTGCC-TGGTGCTGGC 116

Ovr107      579 GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG 624
                ·|        |||||·||·|| ··||| |||||·|·|·|||    ···|||
455_051.nt.3 117 CC--------CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG 156

Ovr107      625 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA 674
                ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3 157 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA 206

Ovr107      675 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG 724
                ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3 207 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG 256
```

# FIGURE 12 (continued)

```
Ovr107        725 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG  774
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  257 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG  306

Ovr107        775 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG  824
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  307 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG  356

Ovr107        825 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA  874
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  357 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA  406

Ovr107        875 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG  924
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  407 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG  456

Ovr107        925 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC  974
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  457 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC  506

Ovr107        975 CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG  024
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  507 CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG  556

Ovr107       1025 CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG 1074
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  557 CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG  606

Ovr107       1075 CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC 1124
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  607 CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC  656

Ovr107       1125 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 1174
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  657 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT  706

Ovr107       1175 GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG 1224
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  707 GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG  756

Ovr107       1225 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG 1274
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  757 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG  806

Ovr107       1275 GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT 1324
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  807 GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT  856

Ovr107       1325 ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC  374
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  857 ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC  906

Ovr107       1375 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 1424
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  907 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT  956

Ovr107       1425 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1474
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  957 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1006
```

# FIGURE 12 (continued)

```
Ovr107        1475 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1524
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1007 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1056

Ovr107        1525 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1057 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106

Ovr107        1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1624
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1156

Ovr107        1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1206

Ovr107        1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1207 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1256

Ovr107        1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1774
                   ||·|||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1257 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1306

Ovr107        1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1824
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1307 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1356

Ovr107        1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1357 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1406

Ovr107        1875 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1407 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1456

Ovr107        1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1974
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1457 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1506

Ovr107        1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 2024
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1507 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 1556

Ovr107        2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1557 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1606

Ovr107        2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 2124
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1607 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 1656

Ovr107        2125 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 2174
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.3  1657 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 1706

Ovr107        2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAAA  2221
                   |||||||||||||||||||||||||||·
455_051.nt.3  1707 AGCCTATAAACAGCCTCCGTGCTTAGCAG                     1735
```

# FIGURE 13

```
Ovr107          1 AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG    50

455_051.nt.4    1                                                          0


Ovr107         51 GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG   100

455_051.nt.4    1                                                          0


Ovr107        101 ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG   150

455_051.nt.4    1                                                          0


Ovr107        151 GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC   200

455_051.nt.4    1                                                          0


Ovr107        201 GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT   250

455_051.nt.4    1                                                          0


Ovr107        251 TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC   300

455_051.nt.4    1                                                          0


Ovr107        301 CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG   350

455_051.nt.4    1                                                          0


Ovr107        351 ACGACCCCAGGCGAAGCCCATTCCCGAGGCAGAGGAGGCGCAGAGGCCTG   400

455_051.nt.4    1                                                          0


Ovr107        401 AGCCGGTGGGGACCTCGAGCAA-------CGCTGACTC----GGC-CTCC   438
                     ||·|||···|||       |||| |||    ||| ||||
455_051.nt.4    1                GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC    38


Ovr107        439 CCGGACCTGGGTCC---------CCGGGGTCCTGACCTGGCGGTTCTGCA    79
                   ||       |||      ||·||| |||||||        ||
455_051.nt.4   39 CC---------TCCCGCCACTTGCCAGGG--CTGACCT----------CA    67


Ovr107        480 -GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTCGACGACGTAGAG    28
                   ·||                |||  ||·|||||··||||·|
455_051.nt.4   68 CCGC--------------CAT-CTTAACCGGGTGTCC------------    89


Ovr107        529 AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA    78
                   |·||·|·|     ||||               |·||| ·||||||||||·
455_051.nt.4   90 ACCTCTCT-------CTGC---------------CTGCC-TGGTGCTGGC    16


Ovr107        579 GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG    24
                   ·|       ||||·||·||  ··||| ||||||·|·|·|||    ···|||
455_051.nt.4  117 CC-------CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG   156


Ovr107        625 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA   674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  157 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA   206


Ovr107        675 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG   724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  207 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG   256
```

# FIGURE 13·(continued)

```
Ovr107          725 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 774
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 257 GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 306

Ovr107          775 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCA   824
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 307 CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG  356

Ovr107          825 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA  874
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 357 TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA  406

Ovr107          875 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG  924
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 407 ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG  456

Ovr107          925 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC  974
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 457 ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC  506

Ovr107          975 CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG 1024
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 507 CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG  556

Ovr107         1025 CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG 1074
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 557 CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG  606

Ovr107         1075 CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC 1124
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 607 CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC  656

Ovr107         1125 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 1174
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 657 AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT  706

Ovr107         1175 GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG  224
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 707 GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG  756

Ovr107         1225 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG 1274
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 757 CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG  806

Ovr107         1275 GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT 1324
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 807 GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT  856

Ovr107         1325 ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC 1374
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 857 ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC  906

Ovr107         1375 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 1424
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 907 AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT  956

Ovr107         1425 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1474
                    ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4 957 GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1006
```

# FIGURE 13 (continued)

```
Ovr107        1475 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1524
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1007 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1056

Ovr107        1525 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1057 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106

Ovr107        1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1624
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1156

Ovr107        1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1206

Ovr107        1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1207 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1256

Ovr107        1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1774
                   ||·|||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1257 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1306

Ovr107        1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1824
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1307 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1356

Ovr107        1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1357 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1406

Ovr107        1875 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1407 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1456

Ovr107        1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1974
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1457 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1506

Ovr107        1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 2024
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1507 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 1556

Ovr107        2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1557 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1606

Ovr107        2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 2124
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1607 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 1656

Ovr107        2125 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 2174
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.4  1657 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 1706

Ovr107        2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAAA    2221
                   |||||||||||||||||||||||||||||||||||·|||||||||||||||||||||
455_051.nt.4  1707 AGCCTATAAACAGCCTCCGTGCTTAGCAGAAAAAAAAAAAAAAAAAAAAAAAA 1756
```

# FIGURE 13 (continued)

```
Ovr107          2222                                                                2221

455_051.nt.4 1757 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACATACAAAAAATAAAAGA 1806

Ovr107          2222                                                                2221

455_051.nt.4 1807 ATAGTCAACAAACAAAATAAGAAACTATAGATAATATAAAAATGAAAATA 1856

Ovr107          2222                                                                2221

455_051.nt.4 1857 AAAAAGAGATGGGGTGGGGCCCTTGTCTTTACTCTCTCCCTCTGGAGTGG 1906

Ovr107          2222                                                                2221

455_051.nt.4 1907 GCACACTATATTATTTCGCCCTCCCCCTCTTTTTTTTGTATGAGAGGGCTC 1956

Ovr107          2222                                                                2221

455_051.nt.4 1957 TTTTA                                                           1961
```

# FIGURE 14

```
Ovr107        1 AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG      50

455_051.nt.5  1                                                             0

Ovr107       51 GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG     100

455_051.nt.5  1                                                             0

Ovr107      101 ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG     150

455_051.nt.5  1                                                             0

Ovr107      151 GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC     200

455_051.nt.5  1                                                             0

Ovr107      201 GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT     250

455_051.nt.5  1                                                             0

Ovr107      251 TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC     300

455_051.nt.5  1                                                             0

Ovr107      301 CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG      50

455_051.nt.5  1                                                             0

Ovr107      351 ACGACCCCAGGCGAAGCCCATTCCCGAGGCAGAGGAGGCGCAGAGGCCTG     400

455_051.nt.5  1                                                             0

Ovr107      401 AGCCGGTGGGGACCTCGAGCAA-------CGCTGACTC----GGC-CTCC     438
                              ||·|||···|||         |||| |||    ||| ||||
455_051.nt.5  1               GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC      38

Ovr107      439 CCGGACCTGGGTCC---------CCGGGGTCCTGACCTGGCGGTTCTGCA      79
                ||          |||       ||·||| |||||||           ||
455_051.nt.5 39 CC--------TCCCGCCACTTGCCAGGG--CTGACCT----------CA      67

Ovr107      480 -GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTCGACGACGTAGAG     528
                 ·||                |||  ||·|||||··||||·|
455_051.nt.5 68 CCGC--------------CAT-CTTAACCGGGTGTCC-----------      89

Ovr107      529 AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA     578
                |·||·|·|        ||||                 |·||| ·||||||||·
455_051.nt.5 90 ACCTCTCT-------CTGC---------------CTGCC-TGGTGCTGGC     16

Ovr107      579 GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG     624
                ·|          ||||·||·||  ··||| |||||·|·|·|||    ···|||
455_051.nt.5117 CC--------CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG     156

Ovr107      625 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA     674
                ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5157 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA     206

Ovr107      675 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG     724
                ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5207 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG     256
```

# FIGURE 14 (continued)

```
Ovr107        725  GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG   774
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  257  GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG   306

Ovr107        775  CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG   824
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  307  CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG   356

Ovr107        825  TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA   874
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  357  TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA   406

Ovr107        875  ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG   924
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  407  ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG   456

Ovr107        925  ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC   974
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  457  ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC   506

Ovr107        975  CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG   024
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  507  CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG   556

Ovr107       1025  CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG  1074
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  557  CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG   606

Ovr107       1075  CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC  1124
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  607  CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC   656

Ovr107       1125  AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT  1174
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  657  AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT   706

Ovr107       1175  GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG  1224
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  707  GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG   756

Ovr107       1225  CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG  1274
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  757  CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG   806

Ovr107       1275  GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT  1324
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  807  GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT   856

Ovr107       1325  ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC  1374
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  857  ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC   906

Ovr107       1375  AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT  1424
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  907  AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT   956

Ovr107       1425  GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA  1474
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  957  GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA  1006
```

## FIGURE 14 (continued)

```
Ovr107        1475 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1524
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1007 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1056

Ovr107        1525 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1057 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106

Ovr107        1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1624
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1156

Ovr107        1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1206

Ovr107        1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1207 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1256

Ovr107        1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1774
                   ||·|||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1257 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGCACGTGTGTACA 1306

Ovr107        1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1824
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1307 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1356

Ovr107        1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1357 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1406

Ovr107        1875 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1407 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1456

Ovr107        1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1974
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1457 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1506

Ovr107        1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 2024
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1507 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 1556

Ovr107        2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1557 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1606

Ovr107        2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 2124
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1607 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 1656

Ovr107        2125 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 2174
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.5  1657 AGACCCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 1706

Ovr107        2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAA--------- 2215
                   |||||||||||||||||||||||||||||||||·|||||·||||·|
455_051.nt.5  1707 AGCCTATAAACAGCCTCCGTGCTTAGCAGAAAAASAAAACACATCAACCC 1756
```

# FIGURE 14 (continued) .

```
Ovr107        2216 AAAAAA                                                  2221
                   ||.|||
455_051.nt.5  1757 AACAAACGTTTGGGGTATTCCATGGCCAATACCGTTGTTCCCGTGTGTGA     1806

Ovr107        2222                                                        2221

455_051.nt.5  1807 ACATTGTTATTTCAGCTCACATTTCCCACAGTATTGGAACAACACATCAT     1856

Ovr107        2222                                                        2221

455_051.nt.5  1857 ACCACACACACACAGAACCAATCGAGATATATAAACCCAATGCACACTCA     1906

Ovr107        2222                                                        2221

455_051.nt.5  1907 AACACCTAAT                                             1916
```

# FIGURE 15

```
Ovr107          1 AGAGCAAGGAAGGGCAGGGGACCTGGGAAGGAAGTTCTGGAAGGCAGTGG  50

455_051.nt.6    1                                                       0


Ovr107         51 GGTTTGAGATTGGACCCAGGGTCAAGATAGAACATGAAGGTGGGATGAGG 100

455_051.nt.6    1                                                       0


Ovr107        101 ACATGAACAGAACATGGCCAAGAAGGATCTGGGGGAGCAGCCAGGACGAG  50

455_051.nt.6    1                                                       0


Ovr107        151 GCGGAGCTGATCCGAGAGGACATCCAGGGGGCTCTGCACAATTACCGCTC 200

455_051.nt.6    1                                                       0


Ovr107        201 GGGCCGCGGGGAGCGCAGGGCGGCGGCGCTCAGGGCCACGCAGGAGGAGT 250

455_051.nt.6    1                                                       0


Ovr107        251 TGCAGCGCGACCGCTCGCCCGCCGCTGAGACCCCGCCCCTGCAGCGCCGC 300

455_051.nt.6    1                                                       0


Ovr107        301 CCGTCAGTCCGCGCAGTGATCAGCACCGTAGAGCGGGGCGCGGGCCGCGG 350

455_051.nt.6    1                                                       0


Ovr107        351 ACGACCCCAGGCGAAGCCCATTCCCGAGGCAGAGGAGGCGCAGAGGCCTG 400

455_051.nt.6    1                                                       0


Ovr107        401 AGCCGGTGGGGACCTCGAGCAA-------CGCTGACTC----GGC-CTCC 438
                          || ||| ...|||         ||||   |||    ||| ||||
455_051.nt.6    1          GATCTCTTCCAAATGTCCCCGCT--CTCCCCAGGCTCTCC  38


Ovr107        439 CCGGACCTGGGTCC---------CCGGGGTCCTGACCTGGCGGTTCTGCA 479
                   ||        |||          || ||| |||||||           ||
455_051.nt.6   39 CC--------TCCCGCCACTTGCCAGGG--CTGACCT----------CA  67


Ovr107        480 -GGCGGAGCGGGAAGTGGACATCCTGAACCACGTGTTCGACGACGTAGAG 528
                    .||                ||| ||.||||..||||.|
455_051.nt.6   68 CCGC--------------CAT-CTTAACCGGGTGTCC------------  89


Ovr107        529 AGCTTTGTATCGAGGCTGCAGAAGTCGGCGGAGGCGGCCAGGGTGCTGGA 578
                   |.||.|.|          ||||            |.||| .|||||||||.
455_051.nt.6   90 ACCTCTCT-------CTGC-------------CTGCC-TGGTGCTGGC 116


Ovr107        579 GCACCGGGAACGCGGCCGCAGGAGCCGGCGCCGGGCGGCT----GGGGAG 624
                   |            ||||.||.|| ..||| |||||.|.|.|||    ...|||
455_051.nt.6  117 CC--------CGCGTCCCCA-TCGCC-GCGCCCGTCTGCTCCCCTCAGAG 156


Ovr107        625 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA 674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  157 GGCTTGCTGACGCTGCGGGCCAAGCCGCCCTCGGAGGCCGAGTACACCGA 206


Ovr107        675 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG 724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  207 CGTGCTGCAGAAGATCAAGTACGCCTTCAGCCTGCTGGCCCGGCTGCGCG 256
```

# FIGURE 15 (continued)

```
Ovr107       725  GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 774
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 257  GCAACATCGCCGACCCCTCCTCTCCGGAGCTGTTGCACTTCCTTTTCGGG 306

Ovr107       775  CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG 824
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 307  CCTCTGCAGATGATTGTGAACACGTCGGGGGGGCCGGAGTTCGCGAGCAG 356

Ovr107       825  TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA 874
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 357  TGTGCGGCGGCCGCATCTGACATCGGATGCCGTGGCGCTGCTGCGGGACA 406

Ovr107       875  ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG 924
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 407  ACGTCACTCCACGTGAAAACGAGCTCTGGACCTCGCTGGGGGACTCGTGG 456

Ovr107       925  ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC 974
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 457  ACCCGCCCCGGGCTGGAGCTGTCCCCGGAGGAGGGACCCCCATACAGACC 506

Ovr107       975  CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG 024
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 507  CGAGTTCTTCAGCGGCTGGGAGCCGCCGGTCACTGACCCGCAGAGCCGCG 556

Ovr107      1025  CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG 074
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 557  CCTGGGAGGACCCAGTTGAGAAACAGCTACAGCACGAGCGGAGGCGCCGG 606

Ovr107      1075  CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC 1124
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 607  CAGCAAAGCGCCCCCCAGGTCGCTGTCAATGGTCACCGAGACTTGGAGCC  656

Ovr107      1125  AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT 1174
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 657  AGAATCTGAGCCTCAGCTGGAGTCAGAGACAGCAGGAAAATGGGTCCTGT  706

Ovr107      1175  GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG 1224
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 707  GTAATTATGACTTCCAGGCCCGCAACAGCAGTGAGCTGTCGGTCAAGCAG  756

Ovr107      1225  CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG 1274
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 757  CGGGACGTACTGGAGGTCCTGGATGACAGTCGTAAGTGGTGGAAGGTTCG  806

Ovr107      1275  GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT 1324
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 807  GGACCCAGCGGGGCAGGAGGGATATGTGCCCTACAACATCCTGACACCCT  856

Ovr107      1325  ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC 1374
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 857  ACCCCGGACCCCGGCTGCACCACAGCCAAAGCCCTGCCCGCAGCCTGAAC  906

Ovr107      1375  AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT 1424
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 907  AGCACTCCTCCTCCACCACCAGCCCCAGCCCCGGCCCCACCTCCAGCTCT  956

Ovr107      1425  GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1474
                  ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6 957  GGCTCGGCCCCGCTGGGACAGGCCCCGCTGGGACAGCTGCGATAGCCTCA 1006
```

# FIGURE 15 (continued)

```
Ovr107        1475 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1524
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1007 ACGGCTTGGACCCCAGCGAGAAGGAGAAATTCTCCCAGATGCTCATCGTC 1056

Ovr107        1525 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1574
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1057 AACGAGGAACTGCAGGCGCGCCTGGCCCAGGGCCGCTCGGGACCGAGCCG 1106

Ovr107        1575 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1624
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1107 CGCAGTCCCAGGGCCCCGCGCCCCGGAACCGCAGCTCAGCCCGGGCTCGG 1156

Ovr107        1625 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1674
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1157 ACGCCTCCGAGGTCCGCGCCTGGCTGCAGGCCAAGGGCTTTAGCTCCGGG 1206

Ovr107        1675 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1724
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1207 ACCGTGGACGCGCTGGGTGTGCTGACCGGGGCGCAGCTTTTCTCGCTGCA 1256

Ovr107        1725 GAGGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGGCACGTGTGTACA 1774
                   ||·|||||||||||||||||||||||||||||||||||||||||||||| 
455_051.nt.6  1257 GAAGGAGGAGCTGCGGGCGGTGAGCCCCGAGGAGGGGGGCACGTGTGTACA 1306

Ovr107        1775 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1824
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1307 GCCAGGTCACCGTGCAGCGCTCGCTGCTGGAGGACAAAGAGAAAGTGTCA 1356

Ovr107        1825 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1874
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1357 GAGCTGGAGGCAGTGATGGAGAAGCAAAAGAAGAAGGTGGAAGGCGAGGT 1406

Ovr107        1875 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1924
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1407 GGAAATGGAGGTCATTTGACCTGCCAGGCGCCCTTCGCAAAGAGTGACGA 1456

Ovr107        1925 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1974
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1457 GGCCCCGTGGGAGAACGGACTCCTCAGACTCTCCCCAATAGCGGAAGTCG 1506

Ovr107        1975 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 2024
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1507 ATCTTCTGAAGGATGGCCAATCTGCTCCGGCCCTGGTCTTCCCCCATCCC 1556

Ovr107        2025 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 2074
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1557 GGTGGACAGACTTAACGATCCTTGCTGCAGTCCCTCCGGAGAGGATCTGG 1606

Ovr107        2075 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 2124
                   ||||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1607 ACTGGCTGGGAGTGGGGAGGGCGTGGAGACAGTCTACGGAAAGCGCTAGC 1656

Ovr107        2125 AGACCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 2174
                   |||||||||||||||||||||||||||||||||||||||||||||||||
455_051.nt.6  1657 AGACCCCGAGAGGGTGCAGTGGAGCCCTGAGCATTGTAATATGCGGCCC 1706

Ovr107        2175 AGCCTATAAACAGCCTCCGTGCTTAGCAAAAAAAAAAAAAAAAAAAAAA 2221
                   |||||||||||||||||||||||||||||·
455_051.nt.6  1707 AGCCTATAAACAGCCTCCGTGCTTAGCAG                    1735
```

# FIGURE 16

```
Ovr110      1    GAGTCACCAAGGAAGGCAGCGGCAGCTCCACTCAGCCAGTACCCAGA       47
                 ||||||||||||||||||||||||||| ||||||||||||||||||||
Ovr110v1    1  TGTGAGTCACCAAGGAAGGCAGCGGCA-CTCCACTCAGCCAGTACCCAGA     49

Ovr110     48    TACGCTGGGAACCTTCCCCAGCCATGGCTTCCCTGGGGCAGATCCTCTTC     97
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1.  50    TACGCTGGGAACCTTCCCCAGCCATGGCTTCCCTGGGGCAGATCCTCTTC     99

Ovr110     98    TGGAGCATAATTAGCATCATCATTATTCTGGCTGGAGCAATTGCACTCAT    147
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   100   TGGAGCATAATTAGCATCATCATTATTCTGGCTGGAGCAATTGCACTCAT    149

Ovr110     148   CATTGGCTTTGGTATTT---------------------------------    164
                 ||||||||||||||||||
Ovr110v1   150   CATTGGCTTTGGTATTTCAGAAGTCTCTGTCTGGCTTTCAGCAATGAAGG    199

Ovr110     165   --------------------------------------------------    164

Ovr110v1   200   GTTTGGTTGTAGAAGTTCCAAGGCTTCCCTTAGCATTGATCTTTGCTTCC    249

Ovr110     165   -------CAGGGAGACACTCCATCACAGTCACTACTGTCGCCTCAGCTGG    207
                        |||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   250   TGAACTGCAGGGAGACACTCCATCACAGTCACTACTGTCGCCTCAGCTGG    299

Ovr110     208   GAACATTGGGGAGGATGGAATCCAGAGCTGCACTTTTGAACCTGACATCA    257
                 ||||||||||||||||||||||||||·|||||||||||||||||||||||
Ovr110v1   300   GAACATTGGGGAGGATGGAATCCTGAGCTGCACTTTTGAACCTGACATCA    349

Ovr110     258   AACTTTCTGATATCGTGATACAATGGCTGAAGGAAGGTGTTTTAGGCTTG    307
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   350   AACTTTCTGATATCGTGATACAATGGCTGAAGGAAGGTGTTTTAGGCTTG    399

Ovr110     308   GTCCATGAGTTCAAAGAAGGCAAAGATGAGCTGTCGGAGCAGGATGAAAT    357
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   400   GTCCATGAGTTCAAAGAAGGCAAAGATGAGCTGTCGGAGCAGGATGAAAT    449

Ovr110     358   GTTCAGAGGCCGGACAGCAGTGTTTGCTGATCAAGTGATAGTTGGCAATG    407
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   450   GTTCAGAGGCCGGACAGCAGTGTTTGCTGATCAAGTGATAGTTGGCAATG    499

Ovr110     408   CCTCTTTGCGGCTGAAAAACGTGCAACTCACAGATGCTGGCACCTACAAA    457
                 |||||||||||||||||||||||||||||||||||||||||||||||||·|
Ovr110v1   500   CCTCTTTGCGGCTGAAAAACGTGCAACTCACAGATGCTGGCACCTACAAA    549

Ovr110     458   TGTTATATCATCACTTCTAAAGGCAAGGGGAATGCTAACCTTGAGTATAA    507
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   550   TGTTATATCATCACTTCTAAAGGCAAGGGGAATGCTAACCTTGAGTATAA    599

Ovr110     508   AACTGGAGCCTTCAGCATGCCGGAAGTGAATGTGGACTATAATGCCAGCT    557
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   600   AACTGGAGCCTTCAGCATGCCGGAAGTGAATGTGGACTATAATGCCAGCT    649

Ovr110     558   CAGAGACCTTGCGGTGTGAGGCTCCCCGATGGTTCCCCCAGCCCACAGTG    607
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   650   CAGAGACCTTGCGGTGTGAGGCTCCCCGATGGTTCCCCCAGCCCACAGTG    699

Ovr110     608   GTCTGGGCATCCCAAGTTGACCAGGGAGCCAACTTCTCGGAAGTCTCCAA    657
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   700   GTCTGGGCATCCCAAGTTGACCAGGGAGCCAACTTCTCGGAAGTCTCCAA    749
```

# FIGURE 16 (continued)

```
Ovr110      658  TACCAGCTTTGAGCTGAACTCTGAGAATGTGACCATGAAGGTTGTGTCTG   707
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    750  TACCAGCTTTGAGCTGAACTCTGAGAATGTGACCATGAAGGTTGTGTCTG   799

Ovr110      708  TGCTCTACAATGTTACGATCAACAACACATACTCCTGTATGATTGAAAAT   757
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    800  TGCTCTACAATGTTACGATCAACAACACATACTCCTGTATGATTGAAAAT   849

Ovr110      758  GACATTGCCAAAGCAACAGGGGATATCAAAGTGACAGAATCGGAGATCAA   807
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    850  GACATTGCCAAAGCAACAGGGGATATCAAAGTGACAGAATCGGAGATCAA   899

Ovr110      808  AAGGCGGAGTCACCTACAGCTGCTAAACTCAAAGGCTTCTCTGTGTGTCT   857
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    900  AAGGCGGAGTCACCTACAGCTGCTAAACTCAAAGGCTTCTCTGTGTGTCT   949

Ovr110      858  CTTCTTTCTTTGCCATCAGCTGGGCACTTCTGCCTCTCAGCCCTTACCTG   907
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    950  CTTCTTTCTTTGCCATCAGCTGGGCACTTCTGCCTCTCAGCCCTTACCTG   999

Ovr110      908  ATGCTAAAATAATGTGCCTCGGCCACAAAAAAGCATGCAAAGTCATTGTT   957
                 |||||||||||||||||||||||| ·||||||||||||||||||||||||
Ovr110v1   1000  TGCTAAAATAATGTGCCTTGGCCACAAAAAAGCATGCAAAGTCATTGTT  1049

Ovr110      958  ACAACAGGGATCTACAGAACTATTTCACCACCAGATATGACCTAGTTTTA  1007
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   1050  ACAACAGGGATCTACAGAACTATTTCACCACCAGATATGACCTAGTTTTA  1099

Ovr110     1008  TATTTCTGGGAGGAAATGAATTCATATCTAGAAGTCTGGAGTGAGCAAAC  1057
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   1100  TATTTCTGGGAGGAAATGAATTCATATCTAGAAGTCTGGAGTGAGCAAAC  1149

Ovr110     1058  AAGAGCAAGAAACAAAAAGAAGCCAAAAGCAGAAGGCTCCAATATGAACA  1107
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   1150  AAGAGCAAGAAACAAAAAGAAGCCAAAAGCAGAAGGCTCCAATATGAACA  1199

Ovr110     1108  AGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAATAATTCATG  1157
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   1200  AGATAAATCTATCTTCAAAGACATATTAGAAGTTGGGAAAATAATTCATG  1249

Ovr110     1158  TGAACTAGA-----------------------------------------  1166
                 |||||||||
Ovr110v1   1250  TGAACTAGACAAGTGTGTTAAGAGTGATAAGTAAAATGCACGTGGAGACA  1299

Ovr110     1167  --------------------------------------------------  1166

Ovr110v1   1300  AGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTCACCTGGGGAGT  1349

Ovr110     1167  --------------------------------------------------  1166

Ovr110v1   1350  GAGAGGACAGGATAGTGCATGTTCTTTGTCTCTGAATTTTTAGTTATATG  1399

Ovr110     1167  --------------------------------------------------  1166

Ovr110v1   1400  TGCTGTAATGTTGCTCTGAGGAAGCCCCTGGAAAGTCTATCCCAACATAT  1449

Ovr110     1167  --------------------------------------------------  1166

Ovr110v1   1450  CCACATCTTATATTCCACAAATTAAGCTGTAGTATGTACCCTAAGACGCT  1499
```

# FIGURE 16 (continued)

```
Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1500 GCTAATTGACTGCCACTTCGCAACTCAGGGGCGGCTGCATTTTAGTAATG 1549

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1.   1550 GGTCAAATGATTCACTTTTTATGATGCTTCCAAAGGTGCCTTGGCTTCTC 1599

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1600 TTCCCAACTGACAAATGCCAAAGTTGAGAAAAATGATCATAATTTTAGCA 1649

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1650 TAAACAGAGCAGTCGGCGACACCGATTTTATAAATAAACTGAGCACCTTC 1699

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1700 TTTTTAAACAAACAAATGCGGGTTTATTTCTCAGATGATGTTCATCCGTG 1749

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1750 AATGGTCCAGGGAAGGACCTTTCACCTTGACTATATGGCATTATGTCATC 1799

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1800 ACAAGCTCTGAGGCTTCTCCTTTCCATCCTGCGTGGACAGCTAAGACCTC 1849

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1850 AGTTTTCAATAGCATCTAGAGCAGTGGGACTCAGCTGGGGTGATTTCGCC 1899

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1900 CCCCATCTCCGGGGGAATGTCTGAAGACAATTTTGGTTACCTCAATGAGG 1949

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    1950 GAGTGGAGGAGGATACAGTGCTACTACCAACTAGTGGATAAAGGCCAGGG 1999

Ovr110      1167 ------------------------------------------------- 1166

Ovr110v1    2000 ATGCTGCTCAACCTCCTACCATGTACAGGACGTCTCCCCATTACAACTAC 2049

Ovr110      1167 -----------GTCAACTGTGTCAGGGCTAAGAAACCCTGGTTTTGAGT 1204
                              |||||||||||||||·||||||||||||||||||||
Ovr110v1    2050 CCAATCCGAAGTGTCAACTGTGTCAGGACTAAGAAACCCTGGTTTTGAGT 2099

Ovr110      1205 AGAAAAGGGCCTGGAAAGAGGGGAGCCAACAAATCTGTCTGCTTCCTCAC 1254
                     |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    2100 AGAAAAGGGCCTGGAAAGAGGGGAGCCAACAAATCTGTCTGCTTCCTCAC 2149

Ovr110      1255 ATTAGTCATTGGCAAATAAGCATTCTGTCTCTTTGGCTGCTGCCTCAGCA 1304
                     |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    2150 ATTAGTCATTGGCAAATAAGCATTCTGTCTCTTTGGCTGCTGCCTCAGCA 2199

Ovr110      1305 CAGAGAGCCAGAACTCTATCGGGCACCAGGATAACATCTCTCAGTGAACA 1354
                     |||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1    2200 CAGAGAGCCAGAACTCTATCGGGCACCAGGATAACATCTCTCAGTGAACA 2249
```

# FIGURE 16 (continued)

```
Ovr110     1355  GAGTTGACAAGGCCTATGGGAAATGCCTGATGGGATTATCTTCAGCTTGT  1404
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2250  GAGTTGACAAGGCCTATGGGAAATGCCTGATGGGATTATCTTCAGCTTGT  2299

Ovr110     1405  TGAGCTTCTAAGTTTCTTTCCCTTCATTCTACCCTGCAAGCCAAGTTCTG  1454
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1·  2300  TGAGCTTCTAAGTTTCTTTCCCTTCATTCTACCCTGCAAGCCAAGTTCTG  2349

Ovr110     1455  TAAGAGAAATGCCTGAGTTCTAGCTCAGGTTTTCTTACTCTGAATTTAGA  1504
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2350  TAAGAGAAATGCCTGAGTTCTAGCTCAGGTTTTCTTACTCTGAATTTAGA  2399

Ovr110     1505  TCTCCAGACCCTGCCTGGCCACAATTCAAATTAAGGCAACAAACATATAC  1554
                 ||||||||||| |·||||||||||||||||||||||||||||||||||||
Ovr110v1   2400  TCTCCAGACCCTTCCTGGCCACAATTCAAATTAAGGCAACAAACATATAC  2449

Ovr110     1555  CTTCCATGAAGCACACACAGACTTTTGAAAGCAAGGACAATGACTGCTTG  1604
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2450  CTTCCATGAAGCACACACAGACTTTTGAAAGCAAGGACAATGACTGCTTG  2499

Ovr110     1605  AATTGAGGCCTTGAGGAATGAAGCTTTGAAGGAAAAGAATACTTTGTTTC  1654
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2500  AATTGAGGCCTTGAGGAATGAAGCTTTGAAGGAAAAGAATACTTTGTTTC  2549

Ovr110     1655  CAGCCCCCTTCCCACACTCTTCATGTGTTAACCACTGCCTTCCTGGACCT  1704
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2550  CAGCCCCCTTCCCACACTCTTCATGTGTTAACCACTGCCTTCCTGGACCT  2599

Ovr110     1705  TGGAGCCACGGTGACTGTATTACATGTTGTTATAGAAAACTGATTTTAGA  1754
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2600  TGGAGCCACGGTGACTGTATTACATGTTGTTATAGAAAACTGATTTTAGA  2649

Ovr110     1755  GTTCTGATCGTTCAAGAGAATGATTAAATATACATTTCCTAAAAAAAAAA  1804
                 ||||||||||||||||||||||||||||||||||||||||||||
Ovr110v1   2650  GTTCTGATCGTTCAAGAGAATGATTAAATATACATTTCCTA           2690

Ovr110     1805  AAAAAAA                                             1811

Ovr110v1   2691                                                      2690
```

# FIGURE 17

```
Ovr110        1 MASLGQILFWSIISIIIILAGAIALIIGFGISGRHSITVTTVASAGNIGE   50
                |||||||||||||||||||||||||||||||||||   .:: |...|..|.:.|
455_053.aa.2  1 MASLGQILFWSIISIIIILAGAIALIIGFGIS---EVSVWLSAMKGLVVE   47

Ovr110       51 DGIQSCTFPDIKLSDIVIQWLKEGVLGLVHEFKEGKDELSEQDEMFRGR  100
                                .|.:.|:.|...
455_053.aa.2 48 --------VPRLPLALIFAS                               59

Ovr110      101 TAVFADQVIVGNASLRLKNVQLTDAGTYKCYIITSKGKGNANLEYKTGAF  150

455_053.aa.2 60                                                    59

Ovr110      151 SMPEVNVDYNASSETLRCEAPRWFPQPTVVWASQVDQGANFSEVSNTSFE  200

455_053.aa.2 60                                                    59

Ovr110      201 LNSENVTMKVVSVLYNVTINNTYSCMIENDIAKATGDIKVTESEIKRRSH  250

455_053.aa.2 60                                                    59

Ovr110      251 LQLLNSKASLCVSSFFAISWALLPLSPYLMLK                    282

455_053.aa.2 60                                                    59
```

# FIGURE 18

```
Ovr110         1 MASLGQILFWSIISIIIILAGAIALIIGFGISGRHSITVTTVASAGNIGE      50
                             .:||||||||||||||||||||||
455_053.aa.3   1                     TAGRHSITVTTVASAGNIGE      20

Ovr110        51 DGIQSCTFEPDIKLSDIVIQWLKEGVLGLVHEFKEGKDELSEQDEMFRGR     100
                 |||.||||||||||||||||||||||||||||||||||||||||||||||
455_053.aa.3  21 DGILSCTFEPDIKLSDIVIQWLKEGVLGLVHEFKEGKDELSEQDEMFRGR      70

Ovr110       101 TAVFADQVIVGNASLRLKNVQLTDAGTYKCYIITSKGKGNANLEYKTGAF     150
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
455_053.aa.3  71 TAVFADQVIVGNASLRLKNVQLTDAGTYKCYIITSKGKGNANLEYKTGAF     120

Ovr110       151 SMPEVNVDYNASSETLRCEAPRWFPQPTVVWASQVDQGANFSEVSNTSFE     200
                 |||||||||||||||||||||||||||||||||||||||||||||||||
455_053.aa.3 121 SMPEVNVDYNASSETLRCEAPRWFPQPTVVWASQVDQGANFSEVSNTSFE     170

Ovr110       201 LNSENVTMKVVSVLYNVTINNTYSCMIENDIAKATGDIKVTESEIKRRSH     250
                 ||||||||||||||||||||||||||||||||||||||||||||||||||
455_053.aa.3 171 LNSENVTMKVVSVLYNVTINNTYSCMIENDIAKATGDIKVTESEIKRRSH     220

Ovr110       251 LQLLNSKASLCVSSFFAISWALLPLSPYLMLK                     282
                 |||||||||||||||||||||||||||||||
455_053.aa.3 221 LQLLNSKASLCVSSFFAISWALLPLSPYLMLK                     252
```